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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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CROWELL & MORING LLP INTELLECTUAL PROPERTY GROUP P.O. BOX 14300 WASHINGTON, DC 20044-4300			MARCHESCHI, MICHAEL A	
			ART UNIT	PAPER NUMBER
			1755	
DATE MAILED: 03/15/2004				

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.	IJDO ET AL.	
10/620,617	Examiner	Art Unit
	Michael A Marcheschi	1755

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication; even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on ____.
- 2a) This action is **FINAL**. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) Claim(s) 14-17 is/are allowed.
- 6) Claim(s) 1-13 and 18-20 is/are rejected.
- 7) Claim(s) ____ is/are objected to.
- 8) Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on ____ is/are: a) accepted or b) objected to by the Examiner. Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a). Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. ____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) Notice of References Cited (PTO-892)
- 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____
- 4) Interview Summary (PTO-413)
Paper No(s)/Mail Date ____
- 5) Notice of Informal Patent Application (PTO-152)
- 6) Other: ____

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The disclosure is objected to because of the following informalities:

The specification is objected to because it does not define the updated information for the parent applications. **The specification should be amended to include the limitation that the parent applications are abandoned.**

Appropriate correction is required.

Claims 1-12 and 18-20 are rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 is indefinite as to the limitation “smectite clays, active clay basis” (as defined in part (a)) because the examiner is unclear as to what this encompasses and defines. The phrase “active clay basis” should be canceled or the above limitation defined in a clear manner.

Claim 1 is also indefinite as to the limitation “smectite clay active clay basis” (as defined in part (b)) because the examiner is unclear as to what this encompasses and defines. The phrase “active clay basis” should be canceled (since this part already defines that the amount of additive is based on the amount of clay) or the above limitation defined in a clear manner.

Claim 4 is indefinite as to the limitation “smectite clays, active clay basis” because the examiner is unclear as to what this encompasses and defines. The phrase “active clay basis” should be canceled or the above limitation defined in a clear manner.

Claim 6 is indefinite as to the phrase “which may form” (part c)) because this phrase does not define the claim in a definite manner. Do the compounds form these acids or not?

Claim 6 is also indefinite as to the phrase “under the conditions of use in making the slurry” because the examiner is unclear as to what this encompasses, when used in the context of part c) of the claim. In view of this, the scope of the claim is unclear. What are the “conditions of use”? This phrase should be rewritten in a more clear and concise manner.

Claim 7 is indefinite because the phrase “the phosphinate additive” lacks antecedent basis since a “phosphinate additive” has not been **literally** defined before. Claim 1 defines a phosphonate additive.

Claim 7 is also indefinite as to the phrase “selected from the group comprising” (part c) because this is not defined in proper Markush language. This should be changed to “selected from the group consisting of”.

Claim 9 is indefinite because the phrase “the pH” lacks antecedent basis since a “pH” has not been **literally** defined before.

Claim 10 is indefinite as to the limitation “hectorite clay, active clay base” (as defined in part (a)) because the examiner is unclear as to what this encompasses and defines. The phrase “active clay base” should be canceled or the above limitation defined in a clear manner.

Claim 10 is also indefinite as to the limitation “hectorite clay active clay basis” (as defined in part (b)) because the examiner is unclear as to what this encompasses and defines. The phrase “active clay basis” should be canceled (since this part already defines that the amount of additive is based on the amount of clay) or the above limitation defined in a clear manner.

Claim 12 is indefinite because the phrase “the pH” lacks antecedent basis since a “pH” has not been **literally** defined before.

Claim 12 is also indefinite because it does not define how the pH is adjusted.

The other claims are indefinite because they depend on indefinite claims.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(c) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) do not apply to the examination of this application as the application being examined was not (1) filed on or after November 29, 2000, or (2) voluntarily published under 35 U.S.C. 122(b). Therefore, this application is examined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 2, 4 and 10 are rejected under 35 U.S.C. 102(a or e) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Allen et al.

Allen et al. teach in the entire document, a composition (activated clay composition) comprising hectorite clay and a phosphonate, wherein the clay and the phosphonate are used in the claimed amounts. The composition (activated clay) can be used wherever activated clay is useful (**this implies that it can be used in any material that activated clays are known to be used in**).

The claims are anticipated by the reference because the reference teaches a composition comprising all of the claimed components in the claimed amounts. In the alternative, no patentable distinction is seen to exist between the reference and the claimed invention in the absence of any evidence showing the contrary.

Claims 3, 5-9, 11-13 and 18-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Allen et al. in view of (1) JP 59-7085 and (2) JP 49-107024.

JP 59-7085 teaches in the abstract that activated clays are known to be used in paint compositions.

JP 49-107024 teaches in the abstract that activated clays are known to be used in cement compositions.

The primary reference uses hectorite clay and it is the examiners position that the claimed specific form (beneficiated or unbeneficiated) is obvious because the reference teaches hectorite clays, in general, and this encompasses and makes obvious any and all forms (both beneficiated or unbeneficiated) because "**A generic disclosure renders a claimed species prima facie obvious. *Ex parte George* 21 USPQ 2d 1057, 1060 (BPAI 1991); *In re Woodruff* 16 USPQ 2d**

1934; Merk & Co. v. Biocraft Lab. Inc. 10 USPQ 2d 1843 (Fed. Cir. 1983); In re Susi 169

USPQ 423 (CCPA 1971)".

The reference uses a phosphonate additive and it is the examiners position that the claimed specific phosphonates are obvious because the reference teaches phosphonates, in general, and this encompasses and makes obvious any and all phosphonates because "**A generic disclosure renders a claimed species prima facie obvious. Ex parte George 21 USPQ 2d 1057, 1060 (BPAI 1991); In re Woodruff 16 USPQ 2d 1934; Merk & Co. v. Biocraft Lab. Inc. 10 USPQ 2d 1843 (Fed. Cir. 1983); In re Susi 169 USPQ 423 (CCPA 1971)".**

With respect to the pH, the reference teaches pH values which broadly read on the claimed values. In addition, "about" permits some tolerance.

The specific uses of the clay composition are obvious because the primary reference **implies that the activated clay can be used in any material that activated clays are known to be used in.** Since the two JP references disclose known uses for activated clays compositions, one skilled in the art would have found it obvious to use the clay composition of the primary reference in cements and paints as disclosed by the secondary references.

With respect to the use of a biocide, it is the examiners position that depending on the use of the clay slurry (in paints or cements as being obvious for the above reasons), the use of a biocide is obvious and well within the level of ordinary skill in the art. If the paint was to be used in a humid environment (such as bathroom paint) or as a concrete material which is to be used outside (subjected to the elements of the weather), one skilled in the art would have known that in order to minimize mildew and algae buildup, one should incorporate a biocide in the composition.

With respect to method claims 12-13, the reference teaches a pH for the activation, and it is the examiners position that one skilled in the art would have known that if the suspension was not at this pH, adjustment of the pH is necessary and thus obvious.

Claims 1, 2, 4, 10 and 18-20 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Coutelle et al.

Coutelle et al. teach in the entire document (specifically the claims), a composition comprising hectorite clay and an organic phosphorous material (phosphonate), wherein the clay and the organic phosphorous material (phosphonate) are used in the claimed amounts. The reference teaches various uses for the composition (i.e. in paints, bitumen emulsions (asphalts) and structural plasters, etc.).

The claims are anticipated by the reference because the reference teaches a composition comprising all of the claimed components in the claimed amounts, as well as, the claimed uses. In the alternative, no patentable distinction is seen to exist between the reference and the claimed invention in the absence of any evidence showing the contrary.

Claims 3, 5-9, 11-13 and 18-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Coutelle et al. in view of Allen et al. in view of JP 59-7085 and JP 49-107024, as defined above.

The primary reference uses hectorite clay and it is the examiners position that the claimed specific form (beneficiated or unbeneficiated) is obvious because the reference teaches hectorite clays, in general, and this encompasses and makes obvious any and all forms (both beneficiated

or unbeneficiated) because "**A generic disclosure renders a claimed species prima facie obvious. *Ex parte George* 21 USPQ 2d 1057, 1060 (BPAI 1991); *In re Woodruff* 16 USPQ 2d 1934; *Merk & Co. v. Biocraft Lab. Inc.* 10 USPQ 2d 1843 (Fed. Cir. 1983); *In re Susi* 169 USPQ 423 (CCPA 1971)**".

The reference uses a phosphonate additive and it is the examiners position that the claimed specific phosphonates are obvious because the reference teaches phosphonates, in general, and this encompasses and makes obvious any and all phosphonates because "**A generic disclosure renders a claimed species prima facie obvious. *Ex parte George* 21 USPQ 2d 1057, 1060 (BPAI 1991); *In re Woodruff* 16 USPQ 2d 1934; *Merk & Co. v. Biocraft Lab. Inc.* 10 USPQ 2d 1843 (Fed. Cir. 1983); *In re Susi* 169 USPQ 423 (CCPA 1971)**".

With respect to the pH, although the reference does not literally define the pH, this does not preclude the material of the reference from having this characteristic (especially since all compositions have a pH). It is therefore the examiners position that since the reference fails to mention any specific pH (criticality), this (the absence of any such limitation) constitutes a broad teaching of pH values. In view of this, it can be reasonably interpreted that the claimed pH is encompassed by the broad teachings according to this reference in the absence of any evidence showing the contrary (criticality). Since all compositions have a pH, burden is upon applicants to show that the pH of the reference is outside the claimed pH.

The primary reference teach uses of the smectite/phosphonate composition and it is the examiners position that one skilled in the art would have found it obvious to use the smectite/phosphonate composition of the primary reference in any final composition, as claimed, because Allen et al. in view of (1) JP 59-7085 and (2) JP 49-107024 teach that the claimed uses

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for smectite/phosphonate compositions are known and therefore any known use is obvious and well within the level of ordinary skill in the art.

With respect to the use of a biocide, it is the examiners position that depending on the use of the clay slurry (in paints, cements or bitumen compositions), the use of a biocide is obvious and well within the level of ordinary skill in the art. If the paint was to be used in a humid environment (such as bathroom paint) or as a concrete or bitumen material which is to be used outside (subjected to the elements of the weather), one skilled in the art would have known that in order to minimize mildew and algae buildup, one should incorporate a biocide in the composition.

With respect to method claims 12-13, since all compositions have a pH, as defined above, the adjustment of the pH to fall within a specified range, depending on the use of the composition, is obvious to one skilled in the art.

Claims 1, 2, and 10 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Brown et al.

Brown et al. teach in the entire document, a composition (activated clay composition) comprising hectorite clay and a phosphonate, wherein the clay and the phosphonate are used in the claimed amounts.

The claims are anticipated by the reference because the reference teaches a composition comprising all of the claimed components in the claimed amounts. In the alternative, no patentable distinction is seen to exist between the reference and the claimed invention in the absence of any evidence showing the contrary.

Claims 3, 5-9, 11-13 and 18-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Brown et al. in view of Allen et al. and further in view of (1) JP 59-7085 and (2) JP 49-107024.

The primary reference uses hectorite clay and it is the examiners position that the claimed specific form (beneficiated or unbeneficiated) is obvious because the reference teaches hectorite clays, in general, and this encompasses and makes obvious any and all forms (both beneficiated or unbeneficiated) because "**A generic disclosure renders a claimed species prima facie obvious. *Ex parte George* 21 USPQ 2d 1057, 1060 (BPAI 1991); *In re Woodruff* 16 USPQ 2d 1934; *Merk & Co. v. Biocraft Lab. Inc.* 10 USPQ 2d 1843 (Fed. Cir. 1983); *In re Susi* 169 USPQ 423 (CCPA 1971)**".

The reference uses a phosphonate additive and it is the examiners position that the claimed specific phosphonates are obvious because the reference teaches phosphonates, in general, and this encompasses and makes obvious any and all phosphonates because "**A generic disclosure renders a claimed species prima facie obvious. *Ex parte George* 21 USPQ 2d 1057, 1060 (BPAI 1991); *In re Woodruff* 16 USPQ 2d 1934; *Merk & Co. v. Biocraft Lab. Inc.* 10 USPQ 2d 1843 (Fed. Cir. 1983); *In re Susi* 169 USPQ 423 (CCPA 1971)**".

With respect to the pH, although the reference does not literally define the pH of the composition, this does not preclude the material of the reference from having this characteristic (especially since all compositions have a pH). It is therefore the examiners position that since the reference fails to mention any specific pH (criticality), this (the absence of any such limitation) constitutes a broad teaching of pH values. In view of this, it can be reasonably

interpreted that the claimed pH is encompassed by the broad teachings according to this reference in the absence of any evidence showing the contrary (criticality). Since all compositions have a pH, burden is upon applicants to show that the pH of the reference is outside the claimed pH.

The primary reference teach uses of the smectite/phosphonate composition and it is the examiners position that one skilled in the art would have found it obvious to use the smectite/phosphonate composition of the primary reference in any final composition, as claimed, because Allen et al. in view of (1) JP 59-7085 and (2) JP 49-107024 teach that the claimed uses for smectite/phosphonate compositions are known and therefore any known use is obvious and well within the level of ordinary skill in the art.

With respect to the use of a biocide, it is the examiners position that depending on the use of the clay slurry (in paints or cements as being obvious for the above reasons), the use of a biocide is obvious and well within the level of ordinary skill in the art. If the paint was to be used in a humid environment (such as bathroom paint) or as a concrete material which is to be used outside (subjected to the elements of the weather), one skilled in the art would have known that in order to minimize mildew and algae buildup, one should incorporate a biocide in the composition.

With respect to method claims 12-13, since all compositions have a pH, as defined above, the adjustment of the pH to fall within a specified range, depending on the use of the composition, is obvious to one skilled in the art.

Claims 1 and 2 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Mardis et al.

Mardis et al. teach in column 7, lines 25+ and the claims, a composition comprising smectite clay and a phosphonate.

The claims are anticipated by the reference because the reference teaches a composition comprising all of the claimed components in the claimed amounts. In the alternative, no patentable distinction is seen to exist between the reference and the claimed invention in the absence of any evidence showing the contrary.

Claims 3-13 and 18-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mardis et al. in view of Allen et al. and further in view of (1) JP 59-7085 and (2) JP 49-107024.

The primary reference uses smectite clay (hectorite) and it is the examiners position that the claimed specific form (beneficiated or unbeneficiated) is obvious because the reference teaches hectorite clays, in general, and this encompasses and makes obvious any and all forms (both beneficiated or unbeneficiated) because **"A generic disclosure renders a claimed species prima facie obvious. *Ex parte George* 21 USPQ 2d 1057, 1060 (BPAI 1991); *In re Woodruff* 16 USPQ 2d 1934; *Merk & Co. v. Biocraft Lab. Inc.* 10 USPQ 2d 1843 (Fed. Cir. 1983); *In re Susi* 169 USPQ 423 (CCPA 1971)".**

The reference uses a phosphonate additive and it is the examiners position that the claimed specific phosphonates are obvious because the reference teaches phosphonates, in general, and this encompasses and makes obvious any and all phosphonates because **"A generic disclosure renders a claimed species prima facie obvious. *Ex parte George* 21 USPQ 2d**

1057, 1060 (BPAI 1991); *In re Woodruff* 16 USPQ 2d 1934; *Merk & Co. v. Biocraft Lab. Inc.* 10 USPQ 2d 1843 (Fed. Cir. 1983); *In re Susi* 169 USPQ 423 (CCPA 1971)".

With respect to the pH, although the reference does not literally define the pH of the composition, this does not preclude the material of the reference from having this characteristic (especially since all compositions have a pH). It is therefore the examiners position that since the reference fails to mention any specific pH (criticality), this (the absence of any such limitation) constitutes a broad teaching of pH values. In view of this, it can be reasonably interpreted that the claimed pH is encompassed by the broad teachings according to this reference in the absence of any evidence showing the contrary (criticality). Since all compositions have a pH, burden is upon applicants to show that the pH of the reference is outside the claimed pH.

The primary reference teach uses of the smectite/phosphonate composition and it is the examiners position that one skilled in the art would have found it obvious to use the smectite/phosphonate composition of the primary reference in any final composition, as claimed, because Allen et al. in view of (1) JP 59-7085 and (2) JP 49-107024 teach that the claimed uses for smectite/phosphonate compositions are known and therefore any known use is obvious and well within the level of ordinary skill in the art.

With respect to the use of a biocide, it is the examiners position that depending on the use of the clay slurry (in paints or cements as being obvious for the above reasons), the use of a biocide is obvious and well within the level of ordinary skill in the art. If the paint was to be used in a humid environment (such as bathroom paint) or as a concrete material which is to be used outside (subjected to the elements of the weather), one skilled in the art would have known

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that in order to minimize mildew and algae buildup, one should incorporate a biocide in the composition.

With respect to the amounts, the primary reference defines amounts and it is the examiners position that these amounts, when calculated in terms of weight percent, will meet the claimed amounts absent evidence to the contrary.

With respect to method claims 12-13, since all compositions have a pH, as defined above, the adjustment of the pH to fall within a specified range, depending on the use of the composition, is obvious to one skilled in the art.

In view of the teachings as set forth above, it is the examiners position that the references reasonably teach or suggest the limitations of the rejected claims.

"A reference is good not only for what it teaches but also for what one of ordinary skill might reasonably infer from the teachings. *In re Opprecht* 12 USPQ 2d 1235, 1236 (CAFC 1989); *In re Bode* USPQ 12; *In re Lamberti* 192 USPQ 278; *In re Bozek* 163 USPQ 545, 549 (CCPA 1969); *In re Van Mater* 144 USPQ 421; *In re Jacoby* 135 USPQ 317; *In re LeGrice* 133 USPQ 365; *In re Preda* 159 USPQ 342 (CCPA 1968)". In addition, "A reference can be used for all it realistically teaches and is not limited to the disclosure in its preferred embodiments" See *In re Van Marter*, 144 USPQ 421.

The subject matter as a whole would have been obvious to one having ordinary skill in the art at the time the invention was made to have selected the overlapping portion of the range disclosed by the reference because overlapping ranges have been held to be a *prima facie* case of

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obviousness, see *In re Malagari*, 182 U.S.P.Q. 549; *In re Wertheim* 191 USPQ 90 (CCPA 1976)".

Evidence of unexpected results must be clear and convincing. *In re Lohr* 137 USPQ 548.

Evidence of unexpected results must be commensurate in scope with the subject matter claimed.

In re Linder 173 USPQ 356.

Claims 14-17 are allowable over the prior art of record because the references fail to teach the claimed method.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael A Marcheschi whose telephone number is (571) 272-1374. The examiner can normally be reached on M-F (8:00-5:30) First Friday Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark L Bell can be reached on (571) 272-1362. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Michael A Marcheschi
Primary Examiner
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MM
3/04